IN THE CLAIMS

1. (Original) A vascular prosthesis or tissue patch with a microporous finely fibular structure of a biocompatible polymer, especially a polyurethane, polyamide, polysulfone, polyester, isotactic polypropylene, polynitrile and/or polyvinylchloride, or mixtures thereof and/or their copolymers, characterized by an elasticity which has been produced by a definitive stretching (extension) with a degree of extension of 30 to 250%, preferably 60 to 125%, and subsequent relaxation.

2. (Original) A method of improving the E-modulus of vascular prosthesis or tissue webs of biocompatible polymer, especially of polyurethane, polyamide, polysulfone, polyester, isotactic polypropylene, polynitrile and/or polyvinylchloride, mixtures thereof and/or their copolymers, with a microporous finely fibular structure, characterized by a definitive stretching (extension) with a degree of extension between 30% and 150%, preferably between 60 and 125%, and subsequent relaxation.

3. (Original) The method according to claim 2 characterized in that the pore size of the vascular prosthesis or of the tissue patch before the stretching is less than the extended dimension expected prior to stretching and beyond which the vascular prosthesis or tissue patch does not retract.

4. (Currently amended) The method according to claim 2 [[or 3]] characterized in that the stretching is an uniaxial or biaxial stretching.

5. (Currently amended) The method according to ~~one of claims 2 to 4~~ claim 2, characterized in that the vascular prosthesis or the tissue patch prior to the stretching is soaked in a water soluble polyphysiological substance, preferably polyvinylalcohol (PVA), polyvinylpyrrolidone or gelatine (collagen) which is completely or partially drawn into the vascular prosthesis or the tissue patch, preferably on the outer side.

6. (Currently amended) The method according to ~~one of claims 2 through 5~~ claim 2, characterized in that the vascular prosthesis is tubular and for stretching a requisite pressure is applied from the interior with a gaseous medium, preferably air or N_2, or with a liquid medium.

7. (Original) The method according to claim 6 characterized in that to avoid leakage, a yieldable preferably elastic auxiliary body is introduced into the vascular prosthesis to be stretched and is thereafter pressurized with a pressure applying medium.

8. (Currently amended) The method according to ~~one of claims 2 through 5~~ claim 5, characterized in that the stretching is

carried out with an auxiliary body capable of mechanical size adjustment upon which the tissue patch is previously clamped or which is introduced into the tubular prosthesis.

9. (Currently amended) The method according to ~~one of claims 2 through 5~~ claim 5, characterized in that for widening a tubular vascular prosthesis, a drawing mandrel is used.

10. (Currently amended) The method according to ~~one of claims 2 through 9~~ claim 2, characterized in that to produce the vascular prosthesis or the tissue patch at least one aliphatic and/or at least one cycloaliphatic diisocyanate is reacted with a macrodiol of the polycarbonate type or of the polyester, polyether, polysiloxane or polysulfone type with an average molecular weight of 500 to 6000, whereby the ratio of NCO terminal groups of the prepolymer to OH groups of the chain lengthening agent is 1.01 :1 to 1.05:1 and the polymer obtained, optionally aftertreatment with a reagent for deactivating NCO groups which may still be present, is subjected to a molecular weight fractionation in which the low molecular weight polyurethane fraction making up 10% to 50% by weight of the polymer is separated off and discarded and the remaining high molecular weight fractionation is recovered as the biocompatible polyurethane with improved properties.